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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
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10/562,071

12/22/2005

Yoshitaka Sugawara

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EXAMINER

HO, ANTHONY

ART UNIT

PAPER NUMBER

2815

MAIL DATE

DELIVERY MODE

09/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-----------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/562,071 | SUGAWARA, YOSHITAKA | |
| | Examiner | Art Unit | |
| | Anthony Ho | 2815 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-4, 9 and 11-13, drawn to a semiconductor device which has a synthetic high-molecular compound, with which a semiconductor element and at least part of electrical connecting means used for electrically connecting the semiconductor device to external devices are covered, in which the synthetic high-molecular compound contains a compound having a three-dimensional steric structure which is formed by linking plural third organosilicon polymers, each of which has a molecular weight of 2×10^4 to 8×10^5 and which have been formed by linking at least one first organosilicon polymers having a crosslinked structure using siloxane (Si-O-Si combination) with at least one second organosilicon polymers having a linear linked structure using siloxane through siloxane bonds, with covalent bonds resulting from addition reaction.

Group 2, claim(s) 5-8, 10 and 14-15, drawn to a semiconductor device comprising: at least one semiconductor elements mounted on a substrate having favorable thermal conductivity; electrical connecting portions for electrically connecting the semiconductor elements to external devices; a first synthetic high-molecular compound with which the semiconductor elements and at least part of the electrical connecting portions are covered and which contains a compound having a three-dimensional steric structure which is formed by linking plural third organosilicon polymers, which have been formed by linking at least one first organosilicon polymers having a crosslinked structure using siloxane (Si-O-Si combination) with at least one second organosilicon polymers having a linear linked structure using siloxane through siloxane bonds, with covalent bonds resulting from addition reaction; a case of a hard resin provided on the substrate so as to house the semiconductor elements and the electrical connecting portions covered with the synthetic high-molecular compound; a second synthetic high-molecular compound with which a space within the case are filled and which mainly comprises polyphenylsilsesquioxane and polydimethylsiloxane; and external connecting terminals which are connected to the electrical connecting portions and which lead outside the case.

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The inventions listed as Groups 1 and 2 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Fujitsu Ltd. (JP 57-131250) discloses a semiconductor device which has a synthetic high-molecular compound, with which a semiconductor element and at least part of electrical connecting means used for electrically connecting the semiconductor device to external devices are covered, in which the synthetic high-molecular compound contains a compound having a three-dimensional steric structure which is formed by linking plural third organosilicon polymers, each of which has a molecular weight of 2×10^4 to 8×10^5 and which have been formed by linking at least one first organosilicon polymers having a crosslinked structure using siloxane (Si-O-Si combination) with at least one second organosilicon polymers having a linear linked structure using siloxane through siloxane bonds, with covalent bonds resulting from addition reaction.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

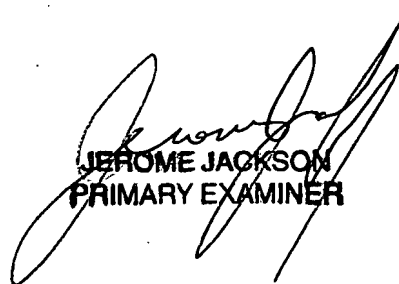
Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ho whose telephone number is 571-270-1432. The examiner can normally be reached on M-Th: 8:30AM-7:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH
September 19, 2007


JEROME JACKSON
PRIMARY EXAMINER